

STATEMENT OF INTEREST

IMSA is a non-profit organization dedicated to the development and use of electrical signaling and communications systems in the furtherance of public safety. IMSA members include representatives of federal, state, county, city, township and borough governmental bodies, and representatives of governmental bodies from foreign nations. Organized in 1896, IMSA is the oldest organization in the world dedicated to the activities pertaining to electrical engineering, including the Public Safety use of radio technology.

IAFC is a voluntary, professional membership society. Its membership, comprised of approximately 12,000 senior Fire Service officials, is dedicated to the protection of life and property throughout the United States and abroad. IAFC is the major national professional association representing the interests of senior management in the Fire Service. The Fire Service also is the largest provider of emergency response medical service in the United States.

IMSA and IAFC are recognized as the frequency coordinating committee for the Fire Radio Service and the Emergency Medical Radio Service ("EMRS") and, in conjunction with the Personal Communications Industry Association ("PCIA"), constitute the recognized coordinating committee for the Special Emergency Radio Service ("SERS").

IMSA/IAFC POSITION

As the Commission noted in its *First R&O*, Congress specifically charged the Commission "with ensuring that 'public safety service licensees continue to operate free of

interference from any new commercial licensees.”³ IMSA and IAFC appreciate the Commission’s efforts in this regard and believe that the establishment of “guard band” spectrum adjacent to the public safety allocation is a necessary first step in achieving this goal. The next step, as the Commission seems to recognize in its *Public Notice*, is the adoption of technical and operational rules for the “guard band” spectrum which will best protect public safety operations. Toward this end, IMSA and IAFC urge the Commission to: (1) implement appropriate out-of-band emissions (“OOBE”) limits and frequency coordination procedures; and (2) adopt certain limitations on the nature of the system architecture that may be employed.

In its *First R&O*, the Commission concluded that licensees operating in the other 30 MHz of commercial spectrum (the non-guard bands) will, at a minimum, be required to attenuate the power below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB for any emission on all frequencies outside the licensee’s authorized spectrum.⁴ In Comments filed previously in this proceeding, however, IMSA and IAFC had expressed their concern that, based upon technical analysis of the Commission’s proposed standard (which was the same as the one ultimately adopted), if the interfering transmitter exceeds 1,000 watts of power or the power of the public safety mobile radio system’s base station is less than 1,000 watts, the proposed standard would be insufficient to protect the mobile radio receiver. To rectify this problem, IMSA and IAFC recommended a somewhat more stringent standard -- i.e., that the OOBE limitation should be $43 + 10 \log_{10}(P, \text{ in watts})$ decibels transmitter power attenuation or *-13 dBm maximum output power, whichever represents the lower out-of-band power*, for any emission on all frequencies

³ *First R&O* at ¶ 98 (citing H. Cong. Rep. No. 105-217, at 12 (1997)).

⁴ *First R&O* at ¶ 103.

outside the licensee's authorized spectrum. IMSA and IAFC continue to believe that such a standard is warranted from a technical standpoint, particularly with respect to the "guard band" spectrum (given its immediate proximity to the public safety allocation). Further, to ensure that the Commission's OOB limits are properly implemented and enforced and to identify potential sources of interference before they pose an actual threat to public safety communications, proposed commercial operations in the "guard band" spectrum must be subject to prior frequency coordination procedures.

The Commission correctly observes that "even the most stringent OOB limits do not guarantee there will never be any interference under any circumstance between commercial and public safety licensees."⁵ While there are, admittedly, no measures that will provide such a guarantee, IMSA and IAFC believe that reasonably stringent OOB limits in the "guard bands" (such as those proposed above by IMSA/IAFC), subject to coordination procedures and coupled with certain limitations on system architecture, will provide sufficient protection to public safety operations without unduly hindering the potential value and usefulness of the "guard band" spectrum. In this regard, IMSA and IAFC strongly recommend that the Commission preclude "guard band" licensees from using system architectures with cellular-like frequency re-use structures or that employ other broadband or multi-frequency high density transmitting/receiving sites. Systems of this nature typically entail extended operating areas with multiple, densely packed, co-located transmitters; and even if each individual transmitter were in compliance with the Commission's OOB limits, the aggregate emissions from multiple transmitters could cause harmful interference to adjacent-band public safety licensees. IMSA and IAFC also question

whether effective frequency coordination procedures could be implemented and enforced with respect to systems of this nature.

As the Commission undoubtedly is aware, the public safety community has been coordinating its operations with private wireless licensees for many years. Such coordination has been successful, by and large, because public safety and private wireless entities typically employ similar or compatible system architectures and primarily provide localized services with limited operating areas. Accordingly, IMSA and IAFC believe that the licensing of the “guard bands” by private wireless users would greatly facilitate the frequency coordination process and substantially reduce the likelihood of interference to vital public safety communications in the 700 MHz band.

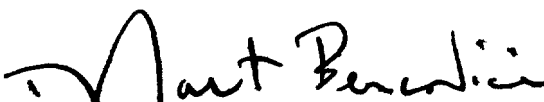
⁵ *First R&O* at ¶ 104.

WHEREFORE, THE PREMISES CONSIDERED, the International Municipal Signal Association and The International Association of Fire Chiefs, Inc., respectfully urge the Federal Communications Commission to act in a manner consistent with the views expressed herein.

Respectfully submitted,

INTERNATIONAL MUNICIPAL SIGNAL
ASSOCIATION

INTERNATIONAL ASSOCIATION OF
FIRE CHIEFS, INC.

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